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REMARKS/ARGUMENTS

Reconsideration is requested in view of the following remarks. Claim 1 has been editorially revised. Support for the editorial revision of claim 1 can be found in Figures 3-4, 7-8 and 10-11, among other places. Claims 1-15 remain under consideration in the present application.

Claim Objections

Claims 1-15 are objected to because reference numerals in parentheses should be removed from the claims. Claims 1, 4 and 5, being the only claims presently under consideration with reference numerals, have been editorially revised to remove the reference numerals in parentheses. This objection is therefore overcome, and the objection should be withdrawn.

Claim Rejections – 35 USC §102

Claims 1-3 and 7 are rejected under 35 U.S.C. §102(b) as anticipated by Mischler et al. (US 4,255,684). Applicants respectfully traverse this rejection.

Claim 1 is directed to a method for fabricating a machine stator. The method requires positioning pre-wound stator windings around respective teeth of a laminated stator yoke; and directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth.

Mischler et al. disclose a laminated motor stator structure with molded composite pole pieces. The stator structure employs a substantially identical pair of laminated cores, wherein each core is constructed of horizontally nested layers of flat strip that may be configured with straight legs connected via a yoke member. The core sections are then assembled coplanar to one another to yield a magnetic structure with inwardly projecting contacting pairs of straight legs, which are the stator poles. A molded magnetic composite pole piece is mounted on and holds together every contacting pair of core straight legs. The molded magnetic composite pole pieces disclosed by Mischler et al. disadvantageously extend along the outer sides of the respective straight legs.

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In contradistinction, claim 1 requires directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth. This is clearly different from the invention of Mischler et al. that disclose magnetic composite pole pieces mounted on and holding together every contacting pair of core straight legs by molding the magnetic composite pole pieces to extend along the outer sides of the respective straight legs.

Thus, Mischler et al. neither teach nor suggest composite tooth tips that contact respective teeth of a laminated stator yoke subsequent to positioning pre-wound stator windings around the respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth as required by claim 1, and such as seen in particular embodiments illustrated in Figures 3-4, 7-8 and 10-11.

The composite pole pieces disclosed by Mischler et al. do not correspond to the composite tooth tips as recited in claim 1. The invention of claim 1 advantageously allows the same volume of pre-wound stator windings to be fit into smaller slots between the teeth. Because the composite pole pieces disclosed by Mischler et al. consume a portion of the slot space between the teeth, the composite pole pieces disclosed by Mischler et al. cannot provide the same advantages achievable using the method of claim 1. The claimed respective teeth of a laminated stator yoke having composite tooth tips that do not extend along the outer sides of the respective teeth are therefore clearly different from the legs disclosed by Mischler et al. having composite pole pieces that extend along the outer sides of the respective legs to consume a portion of the slot space between the legs.

Nowhere do Mischler et al. teach or suggest positioning pre-wound stator windings around respective teeth of a laminated stator yoke; and directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth.

For at least these reasons, claim 1 is patentable over Mischler et al. Claims 2-3 and 7 are patentable since they depend from claim 1 that is patentable.

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Claim Rejections – 35 USC §103

Claim 2 is rejected under 35 U.S.C. §103(a) as unpatentable over Mischler et al. in view of Applicants' admitted prior art (APA). Applicants respectfully traverse this rejection for at least the same reasons discussed above regarding the rejections of claim 1-3 and 7 under 35 U.S.C. §102(b). The admitted prior art neither discloses nor suggests positioning pre-wound stator windings around respective teeth of a laminated stator yoke; and directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth. Further, claim 2 is patentable since it depends from claim 1 that is allowable. Applicants do not concede the correctness of the rejection.

Claim 4 is rejected under 35 U.S.C. §103(a) as unpatentable over Mischler et al. in view of Satomi (JP7336992). Applicants respectfully traverse this rejection for at least the same reasons discussed above regarding the rejections of claims 1-3 and 7. Satomi neither teaches nor suggests positioning pre-wound stator windings around respective teeth of a laminated stator yoke; and directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth. Satomi does not remedy the deficiencies of Mischler et al.

For at least these reasons, claim 4 is patentable over the cited art, alone or in combination, since claim 4 depends from claim 1 that is allowable. Applicants do not concede the correctness of the rejection.

Claims 5 and 6 are rejected under 35 U.S.C. §103(a) as unpatentable over Mischler et al. in view of Crabb (US 3,862,492). Applicants respectfully traverse this rejection for at least the same reasons discussed above regarding the rejections of claims 1-3 and 7. Crabb does not remedy the deficiencies of Mischler et al. Crabb does not teach or suggest a method for fabricating a machine stator requiring positioning pre-wound stator windings around respective teeth of a laminated stator yoke, and then directly molding composite tooth tips into contact with respective teeth of the laminated

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stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth. For at least these reasons, claims 5 and 6 are patentable over the cited art, alone or in combination, since claims 5 and 6 depend ultimately from claim 1 that is allowable. Applicants do not concede the correctness of the rejection.

Claims 8-10 are rejected under 35 U.S.C. §103(a) as unpatentable over Mischler et al. in view of Heidrich (US20020149282). Applicants respectfully traverse this rejection for at least the same reasons discussed above regarding the rejections of claims 1-3 and 7. Heidrich does not remedy the deficiencies of Mischler et al. Heidrich does not teach a method for fabricating a machine stator requiring positioning pre-wound stator windings around respective teeth of a laminated stator yoke, and then directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth. For at least these reasons, claims 8-10 are patentable over the cited art, alone or in combination, since claims 8-10 depend ultimately from claim 1 that is allowable. Applicants do not concede the correctness of the rejection.

Claim 11 is rejected under 35 U.S.C. §103(a) as unpatentable over Mischler et al. in view of Kliman (US 6,274,962). Applicants respectfully traverse this rejection for at least the same reasons discussed above regarding the rejections of claim 1-3 and 7. Kliman does not remedy the deficiencies of Mischler et al. Kliman does not teach or disclose directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke. Kliman does teach the pre-molding of tooth tips and then subsequently attaching the pre-molded tooth tips to pole tooth members. For at least these reasons, claim 11 is patentable over the cited art, alone or in combination, since claim 11 depends from claim 1 that is allowable. Applicants do not concede the correctness of the rejection.

Claims 12-15 are rejected under 35 U.S.C. §103(a) as unpatentable over Mischler et al. and Kliman in view of Heidrich. Applicants respectfully traverse this rejection for

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at least the same reasons discussed above regarding the rejections of claims 1-3 and 7. The cited art, alone or in combination, does not teach a method for fabricating a machine stator requiring positioning pre-wound stator windings around respective teeth of a laminated stator yoke, and then directly molding composite tooth tips into contact with respective teeth of the laminated stator yoke such that the composite tooth tips do not extend along the outer sides of the respective teeth. Heidrich does not remedy the deficiencies of Mischler et al. and Kliman. For at least these reasons, claims 12-15 are patentable over the cited art, alone or in combination, since claims 12-15 depend ultimately from claim 1 that is allowable. Applicants do not concede the correctness of the rejection.

Favorable reconsideration in the form of a Notice of Allowance is requested. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at (507) 351-4450.

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PATENT TRADEMARK OFFICE

Respectfully submitted,

Dated: April 17, 2007

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